

CLAIMS

1. A device (01, 11, 21) for projecting a light beam (03, 13) on an object (9, 26), with a light source (02, 12, 22) for generating the light beam (03, 13), and with projection optics for transmitting the light beam (03, 13) from the light source (02, 12, 22) to the object (09, 26), characterized in that at least one prism (05, 14) with at least two essentially plane-parallel surfaces (06, 07, 16, 17, 18, 19) is arranged in the beam path of the light beam (03, 13) between the light source (02, 12, 22) and the object (09, 26) as part of the projection optics, wherein the prism (05, 14) is movably supported and can be driven by means of a drive unit in such a way that the light beam (03, 13) is shifted in a parallel fashion by an amount (X) that depends on the position of the prism (05, 14) when it passes through the plane-parallel surfaces (06, 07, 16, 17, 18, 19) of the prism (05, 14).

2. The device according to Claim 1, characterized in that the prism (14) has several pairs of surfaces (16, 17, 18, 19) that respectively are arranged essentially plane-parallel to one another, wherein the prism (14) is realized, in particular, in the form of polygonal prism.

3. The device according to Claim 2, characterized in that the plane-parallel surfaces (16, 17, 18, 19) are uniformly distributed over the circumference of the prism (14) and form a regular polygon with n corners.

4. The device according to Claim 2 or 3, characterized in that the prism (14) has two pairs of surfaces (16, 17, 18, 19) that are arranged plane-parallel to one another, wherein the prism (14) is realized, in particular, in the form of a cubical prism.

5. The device according to one of Claims 2-4, characterized in that the respective plane-parallel surfaces (16, 17, 18, 19) of the prism essentially have identical dimensions.

6. The device according to one of Claims 1-5, characterized in that the prism (05, 15) is supported such that it can be turned and/or is able to oscillate about an axis of rotation (08, 15).

7. The device according to Claim 6, characterized in that the axis of rotation (08, 15) extends parallel to the planes defined by the plane-parallel surfaces (06, 07, 16, 17, 18, 19) of the prism.

8. The device according to Claim 6 or 7, characterized in that the prism (14) can be rotatively driven in the clockwise direction or in the counterclockwise direction.

9. The device according to Claim 8, characterized in that the prism (14) is driven with a speed of at least approximately 100 revolutions per second.

10. The device according to one of Claims 1-9, characterized in that the prism (05, 14) can be driven by means of a driving motor, particularly an electric motor.

11. The device according to one of Claims 1-10, characterized in that the device comprises several movably supported prisms that can be driven and are successively arranged in the beam path.

12. The device according to Claim 12, characterized in that the successively arranged prisms are respectively supported such that they can be turned about an axis of rotation, wherein the axes of rotation of the different prisms essentially extend perpendicular to one another.

13. The device according to one of Claims 1-12, characterized in that the light source (12) emits an approximately punctiform light beam.

14. The device according to Claim 13, characterized in that the light source used consists of a laser or a laser diode (12).

15. The device according to one of Claims 1-12, characterized in that the light source (02, 22) emits an approximately line-shaped light beam.

16. The device according to Claim 15, characterized in that the light beam is shifted by the prism (14) in its longitudinal direction such that another line-shaped light beam is formed.

17. The device according to one of Claims 1-16, characterized in that the light source used consists of a lamp with an electrically heated filament (02).

18. The device according to one of Claims 1-16, characterized in that the light source used consists of several lamps that are adjacently arranged in a row, particularly light-emitting diodes (22).

19. The device according to Claim 18, characterized in that the light beam can be shifted by an amount that is greater than the distance between respectively adjacent lamps (22).

20. The device according to one of Claims 1-19, characterized in that the device (21) is realized in the form of a slit projector with a slit diaphragm (24), wherein the prism (14) shifts the light beam in the longitudinal direction of the slit.

21. The device according to one of Claims 1-20, characterized in that the device (21) forms part of an apparatus for carrying out examinations on the human eye.

22. The device according to one of Claims 1-21, characterized in that the apparatus forms part of an ophthalmologic Scheimpflug camera.